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Evaluate the Effectiveness of Systematic Solution to the Capacity Building of HCPs' Diabetes care in Melanesian Countries

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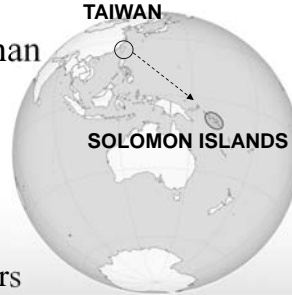




Service • Teaching • Research

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Demographics of SI

- Solomon Islands (SI) is a diverse country with more than 900 islands and 70 language groups
- In 2009 census from WHO
 - The population was 515,870
 - The median age was 19.7 years
 - 54% of the population aged 15-59 years
 - only 5% aged 60 or older






Health Service Delivery Profile, Solomon Islands, 2012

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Health Situation of SI

- Communicable diseases
 - Clinical Malaria and fever accounted for 28% of acute care attendances
- Non-communicable diseases (NCDs)
 - 46% at high risk for NCDs
 - 67% overweight
 - 33% diabetes



Health Service Delivery Profile, Solomon Islands, 2012

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Background

- One of 2006-2015 National Health Strategies Plans of SI
 - To improve healthcare professional's knowledge of diabetes care.
- National Health Strategic Plan 2011-2015 reflect
 - The growing significance of NCDs
 - The need to focus on whole-of-government approaches to health promotion and disease prevention.
- Taiwan collaborated with SI to achieve this national plan since 2009.

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 **The Health Collaboration between Taiwan and SI**

- National Referral Hospital (NRH) Project
 - 1989-1993 NRH Expanding Project: Phase I & II
 - 1994-2004 NRH renovations Project
 - 2005-2006 NRH Expanding Project: Phase III
- 2006
 - NRH and KMUH sister-hood relationship project
 - Taiwan Mobile Medical Mission Service
- 2007
 - Medical Personnel's Capacity Rebuilding Project
 - Taiwan Health Center (THC) in SI project
- 2008: Taiwan Scholarship project on health field

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 **The Health Collaboration between Taiwan and SI**






National Referral Hospital (NRH) **Taiwan Health Center (THC)**

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 **Aim**

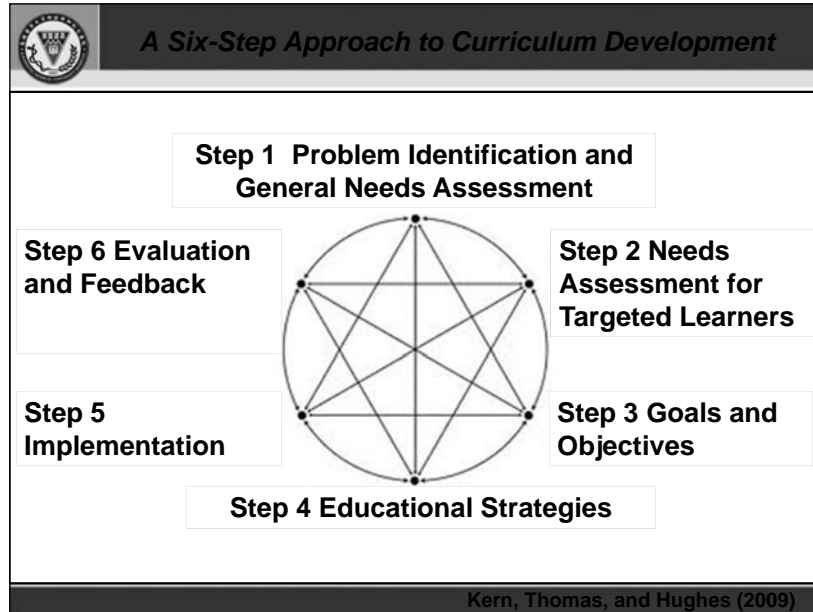
- To evaluate the results of 4-year diabetic educators training program in this Melanesian country
- NCDs prevention: Seed Teacher Training Program for Type 2 Diabetes Mellitus

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 **Materials and Methods**

- **Designer**
 - KMUH, THC and SI Ministry of Health
- **Concept**
 - A Six-Step Approach to Curriculum Development
- **Pre- & Post-Trained Effectiveness Assessment**
 - 20-item Structural questionnaires
 - Feedback List
 - Modified Clinic's Clinical Teaching Effectiveness Instrument (Copeland & Hewson, 2000)
- **Statistical method**
 - Paired t-test was used to evaluated the training effectiveness

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Step 1: Problem Identification and General Needs Assessment

- **The health care problem**
 - Rising NCDs risk, type 2 diabetes would be addressed by the curriculum
 - Affect HCPs and the people in SI
- **Current approach: without appropriate and update textbook or materials**
- **Available resources**
 - Leader of Taiwan Health Center
 - Meetings of experts: Medical Doctor, Certified Diabetic Educator, Dietitians etc. to create the textbook for local staffs using.

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Step 2: Needs Assessment for Targeted Learners

- **Targeted learners: HCPs in Honiara**
- **What information is unknown?**
 - Equipment
 - Basic knowledge of the targeted learners
 - Attitude about the training program
 - Favorite pattern of the training program
- **Methods to obtain the most important information**
 - Keep contact with leader in THC to identify the arrangement of program about time, personnel, supplies, space etc.

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Step 3 Goals and Objectives

- **Goals and objectives**
 - To provide a basic understanding of diabetes
 - To advance patient-centered medical care knowledge and self-management skill
 - To emphasize the importance of maintaining balanced diet and healthy lifestyle for metabolic control
- **Prepare attendees to become clinical or community diabetic educators**

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Step 4 Educational Strategies

- **Lectures and discussion**
 - For update knowledge
- **Video watching, demonstration and feedback on performance**
 - For clinical skills, like insulin injection or food plate with food models
- **Small group discussion and learning projects**
 - For posters manufacture



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Step 5 Implementation

- **2009 & 2010**
 - 4-day intensive and interactive workshop for basic patient care and medical knowledge, medical nutrition therapy and diet management of DM
 - Diabetes-related posters and education material designs and presentations



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Step 5 Implementation

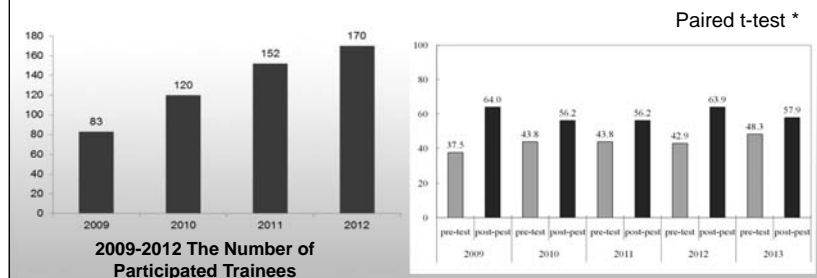
- **2011**
 - The first Micro Fun Project: two experts from KMHU and nine local teachers involved in two workshops
 - Teaching material: Diabetes patient education booklet
 - Round table discussion
- **2012**
 - The second Micro Fun Project: three experts from KMHU and three local teachers involved



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Step 6 Evaluation and Feedback

- **Significant Improvement**
 - 170 health workers were trained in 2009-2012. The average scores of pretest and posttest were statistically significant improved (42.1 to 64.6).



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Step 6 Evaluation and Feedback

- **Satisfaction**
 - Over 90% of them reported satisfied with the training program strongly, especially hands-on practice based learning.
- **Teaching Effectiveness**
 - 12 seed HCPs were scored into “often or always teaching effectiveness” (rating 4~5) by using modified Cleveland Clinic’s Clinical Teaching Effectiveness Instrument.
- **Customized Booklet and Posters**



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Conclusion and Suggestion

- **Conclusion**
 - Customized diabetic educator training program for this developing country, it showed a positive effect and fitted the needs of HCPs.
- **Suggestion**
 - At least two days to introduce health related knowledge and caring skills
 - Involve local HCPs into the teaching program
 - Invite training officers and NCD coordinators from other provinces to participant this kind of program to spread the model into all countries

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